

While speaking of rhizopods, I may mention that there are two articles on the subject in the last two numbers of the *Archiv f. Mikroskopische Anatomie*, by F. E. Schulze, entitled *Rhizopodenstudien*. In these papers several forms are described, which have also come under my observation.

The difflugian described by Schulze as *Quadrula symmetrica*, and first noticed by Dr. Wallich as *Difflugia symmetrica*, with a test composed of quadrate plates, I have also found in several localities in New Jersey.

A difflugian, with a structureless test, referred by Schulze to the genus *Hyalosphenia* of Stein, and described by him with the name of *H. lata*, is the same as the *Difflugia ligata* of Tatem, which I had referred with several other species to a genus under the name of *Catharia*. I had not had access to the work in which *Hyalosphenia* was characterized, and which has priority to *Catharia*. The difflugians referable to it are as follows:—

1. *Hyalosphenia ligata*: Syn. *Difflugia ligata*, Tatem; *Catharia ligata*, Leidy; *Hyalosphenia lata*, Schulze.
2. *Hyalosphenia papilio*: Syn. *Catharia papilio*, Leidy.
3. *Hyalosphenia elegans*: Syn. *Catharia elegans*, Leidy.

The amœban which I have described under the name of *Dinamœba* is almost identical with that described by Schulze with the name of *Mastigamœba* (fig. 1, Taf. xxxv.), and which is probably the same as the *Amœba monociliata* of Carter. *Dinamœba* is, however, devoid of the characteristic flagellum ascribed to the forms of Schulze and Carter. It may, perhaps, prove to be the same as *Dactylosphærium* of Hertwig and Lesser, the description of which appeared in the *Archiv* nearly at the same time as that of *Dinamœba* appeared in the published Proceedings of the Academy. The former is described as being invested with minute villous appendages of protoplasm, but the latter is covered with minute bacterium-like spicules, such as are represented to exist in *Mastigamœba*.

---

OCTOBER 12.

The President, Dr. RUSCHENBERGER, in the chair.

Thirty-five members present.

*Quercus heterophylla*.—Prof. LEIDY exhibited a branch of *Quercus heterophylla* which he had obtained from a large tree, growing on the farm of Mr. J. I. Bishop, in Burlington County, New Jersey. The foliage, he thought, indicated a hybrid between *Q. phellos* and *Q. palustris*. He recommended the introduction of this rare hybrid oak into our city park.

*On the Notation of the Ribs.*—Dr. ALLEN presented the following argument:—

The rib is a member of a system of arches which are arranged bilaterally, each vertebra having a single pair.

The vertebral end of each dorsal rib bears a facet articulating with its own vertebra. When the end bears two facets the lower one articulates with its own vertebra, while the upper articulates with the vertebra above it. The latter facet may be termed a secondary one, and has no homological value.

Now this method of arrangement of the facets must be true when applied to the sternal end of the rib through its produced chondral segment, the costal cartilage, so that the segment of the sternum bears a strict relation of sequence to the dorsal vertebrae; each segment corresponding to a right and left rib. Thus the first rib belongs to the manubrium, and may be called the manubrial rib. The second, although placed apparently between the manubrium and gladiolus, is named by the position of its lower attachment a gladiolar rib. In the young, the succeeding segments of the gladiolus can be named in the same order as far as the fourth. Beyond this the remaining ribs are so crowded that analysis of them is impossible. It can be seen, however, by studying the arrangement in quadrupeds, that the rule holds good, each rib owning, in a homological sense, its own sternal segment. For the present purpose all that remains of importance is to accept as a leading thought, that when a rib is seen joining any two segments of the sternum—to refer it to the lower of the two. Thus, when the seventh rib is seen joining the sternum at the xipho-gladiolar junction, it is correct to assign the rib not to the gladiolus but to the xyphoid cartilage, and, placing it there, we remove it from the series of the gladiolar ribs.

Now the manubrial and the gladiolar ribs are the true ribs—and these, with the removal of the seventh, are but *six* in number. It will also be seen that were all the false ribs produced they would be xyphoidal ribs.

It is commonly the case that where a rule of notation is established it will be found to be correlative with details both of structure and of function. This is the case in the example above cited. The ribs (first 6) which present concave upper borders, and have a vertical surface at the pulmonary groove, are the true or manubrio-gladiolar ribs, and are those which *ascend* in inspiration.

The ribs (last 6) which present convex upper borders, and yield in the pulmonary groove a surface inclined downward and forward, are the xyphoidal ribs (or which if produced would be xyphoidal) and are those which *descend* in inspiration.

It will be seen that both sets present borders concave to the line of traction of the muscles acting upon them.